

REMARKS

Claims 1-48 were originally filed in Application Number 09/899,467. The Examiner restricted the referenced original application to a single Genus and a single Species. Applicant elected to prosecute the Group I, Species I claims in the original application. Applicant accordingly is filing a divisional application based on the referenced original application accompanied by this preliminary amendment. This divisional application will prosecute the claims associated with Group III, Species I in the original application. Applicant has canceled claims 1-24, 26-28 and 30-44 without prejudice.

Applicant has amended claims 25 and 29. Claim 25 has been amended to recite the limitations of canceled claims 26 and 27. Claim 25 now recites a port that inlets a fluid flow “substantially tangential and normal” to the passageway. The prior art on record in the parent file does not show an inlet port “substantially tangential and normal” to the passageway.

Claim 29 has been amended to incorporate the limitations of claims 30 and 31. The method of claim 29 now recites the inletting a fluid flow “substantially tangential and normal” to a passageway in a vortex nozzle.

Applicant has further added claims 49 thru 52. Claims 49 and 50 depend from claim 25, further reciting a plurality of ports. Claims 51 and 52 depend from claim 29, further reciting a plurality of ports.

Applicant now presents herewith claims 25, 29 and 45-52 for prosecution.

The specification has been amended to correct reference number errors. The reference number for the pump is 7. References to the "pump 6" have been changed to recite "pump 7."

Respectfully submitted,

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CERTIFICATE OF MAILING

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AMENDED CLAIMS MARKED TO ILLUSTRATE REVISIONS

25. (amended) A fluid treating apparatus, comprising:

a first vortex nozzle including a passageway therethrough and a port that inlets a first fluid flow [tangentially] substantially tangential and normal to the passageway, whereby the first vortex nozzle imparts a rotation to the first fluid flow thereby creating a first rotated fluid flow; and

a second vortex nozzle positioned in opposed relation the first vortex nozzle, the second vortex nozzle including a passageway therethrough and a port that inlets a second fluid flow [tangentially] substantially tangential and normal to the passageway, whereby the second vortex nozzle imparts a rotation to the second fluid flow thereby creating a second rotated fluid flow collided with the first rotated fluid flow.

29. (amended) A method of treating a fluid, comprising:

positioning a first vortex nozzle in opposed relation to a second vortex nozzle;

inletting a first fluid flow substantially tangential and normal to [tangentially into] a passageway of the first vortex nozzle via a port of the first vortex nozzle, whereby the first vortex nozzle imparts a rotation to the first fluid flow thereby creating a first rotated fluid flow; and

inletting a second fluid flow substantially tangential and normal to [tangentially into] a passageway of the second vortex nozzle via a port of the second vortex nozzle, whereby the second vortex nozzle imparts a rotation to the second fluid flow thereby creating a second rotated fluid flow collided with the first rotated fluid flow.

AMENDED SPECIFICATION MARKED TO ILLUSTRATE REVISIONS

Page 5, 2nd paragraph of the detailed description:

The pump 7 [6] includes an outlet 11 and is any suitable pump capable of pumping fluid from a fluid source through the apparatus 5. Fluid, in this preferred embodiment, is any flowable liquid or gas or solid particulates deliverable under pressurized gas or liquid flow. Although this preferred embodiment discloses a pump 7 [6] for delivering fluids, those of ordinary skill in the art will recognize many other suitable and equivalent means, such as pressurized gas canisters.

Page 6, 1st paragraph:

The manifold 8 includes an inlet 12, a diverter 13, and elbows 14 and 15. The inlet 12 couples to the outlet 11 of the pump 7 [6], using any suitable means, such as a flange and fasteners, to receive a fluid flow from the pump 7 [6]. The inlet 12 fits within an inlet of the diverter 13 and is held therein by friction, welding glue, or the like, to deliver fluid into the diverter 13. The diverter 13 receives the fluid flow therein and divides the fluid flow into a first fluid flow and a second fluid flow by changing the direction of fluid flow substantially perpendicular relative to the flow from the inlet 12. The diverter connects to the elbows 14 and 15 by friction, welding, glue, or the like, to deliver the first fluid flow to the elbow 14 and the second fluid flow to the elbow 15. Each elbow 14 and 15 reverses its respective fluid flow received from the diverter 13 to deliver the fluid flow to the housing 9. The elbow 14 includes elbow fittings 16 and 17, which connect together using any suitable means, such as a flange and fastener. The

elbow fitting 17, in this preferred embodiment, includes a second flange to permit connection of the elbow fitting 17 to the housing 9. Similarly, the elbow 15 includes elbow fittings 18 and 19, which connect together using any suitable means, such as a flange and fastener. The elbow fitting 19, in this preferred embodiment, includes a second flange to permit connection of the elbow fitting 17 to the housing 9. Although this preferred embodiment discloses a manifold 8 for delivering fluid flow into the housing 9, those of ordinary skill in the art will recognize many other suitable and equivalent means, such as two pumps and separate connections to the housing 9 or a single pump delivering fluid into side portions of the housing 9 instead of end portions.